Ma9 LG 3A (Formative Assessment)

Marking Teacher: _____   **Name:** _____

                                                Student #: _____

Write each as repeated multiplication, then in standard form.

1.   **a)** 5^4 **b)** $-(-3)^3$

Write as a power, then in standard form

2.   **a)** $(-6)(-6)(-6)$ **b)** $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

Use powers of 10 to write each number.

3.   **a)** 4075 **b)** 62809

4.   The recent 2012 earthquake in Japan had a reading of just over 6 on the Richter scale. A 1964 earthquake in Alaska was nearly 9 on the Richter scale. About how many times more powerful was the Alaska earthquake compared to the Japanese earthquake?

Write each number in standard form.

5. **a)** $\left(6 \times 10^3\right) + \left(2 \times 10^2\right) + \left(9 \times 10^1\right) + \left(5 \times 10^0\right)$

b) $\left(8 \times 10^5\right) + \left(1 \times 10^3\right) + \left(3 \times 10^2\right) + \left(7 \times 10^1\right)$

Evaluate each expression.

6. **a)** $4^4 - 4^3$

b) $(-6)^2 + (-6)^3$

Evaluate each expression.

7. **a)** $3^2 - (7 - 5)^3$

b) $(15 \div 3)^3 - (2 + 3)^2 + 2^5$

8. Create 3 different answers to the following by adding brackets. $4^3 + 2 \times 5^2 + 8$

Directions: ☐ See me about this ☐ Move on to next guide ☐ Review and redo

Ma9 LG 3B (Formative Assessment)

Marking Teacher: _____

Name: _____

Student #: _____

Write each as repeated multiplication, then in standard form.

1. **a)** -3^4 **b)** $-(-2)^2$

Write as a power, then in standard form

2. **a)** $3 \times 3 \times 3 \times 3 \times 3$ **b)** $(-2) \times (-2) \times (-2) \times (-2)$

Use powers of 10 to write each number.

3. **a)** 356 **b)** 50102

4. pH is based on a power of 10 scale. How many times more basic is a solution with ph 12 than a solution with a pH of 8?

Write each number in standard form.

5. a) $\left(4\times10^4\right)+\left(3\times10^3\right)+\left(7\times10^2\right)+\left(1\times10^0\right)$

b) $\left(9\times10^7\right)+\left(6\times10^4\right)+\left(8\times10^2\right)+\left(2\times10^1\right)$

Evaluate each expression.

6. a) 5^3+5^2

b) $\left(-2\right)^3-\left(-2\right)^4$

Evaluate each expression.

7. a) $-\left(6-2\right)^3+3^2$

b) $\left(4-3\right)^6+2^3-\left(12\div4\right)^2$

8. Create 3 different answers to the following by adding brackets. $4-2^3+5+8^2$

Directions: ☐ **See me about this** ☐ **Move on to next guide** ☐ **Review and redo**